EXAMPLE 3

Inhalation capsules having the composition:

tiotropium bromide monohydrate:	0.0225 mg
lactose monohydrate (200 M):	4.9275 mg
lactose monohydrate (5 μm):	0.5500 mg
hard gelatine capsule:	49.0 mg
Total:	54.5 mg

The inhalable powder needed to prepare the capsules was obtained analogously to Example 1.

EXAMPLE 4

Inhalation capsules having the composition:

tiotropium bromide monohydrate:	0.0225 mg
lactose monohydrate (200 M):	5.2025 mg
lactose monohydrate (5 μm):	0.2750 mg
polyethylene capsule:	100.0 mg
Total:	105.50 mg

The inhalable powder needed to prepare the capsules was obtained analogously to Example 1.

We claim:

1. A process for preparing an inhalable powder, wherein N+m substantially equal portions of an excipient having a larger particle size distribution and N equal portions of an active substance having a smaller particle size distribution are added in alternate layers into a suitable mixing vessel and after all the excipient and active substance have been added the 2N+m layers of the two components are mixed together using a suitable mixer, wherein a portion of the excipient having the larger particle size is added first, and wherein N is an integer >5 and m denotes 0 or 1.

2. A process according to claim 1, wherein N is an integer >5.

3. A process according to claim 1, characterised in that the individual portions of excipient and active substance are added in layers through a suitable screening apparatus.

4. A process according to claim 1, characterised in that m denotes 1.

5. A process according to claim 1, characterised in that the inhalable powder obtained contains less than 5% of active substance.

6. A process according to claim 5, characterised in that the inhalable powder obtained contains less than 2% of active substance.

7. A process according to claim 1, characterised in that the active substance has a particle size of from 0.5 to 10 μm.

8. A process according to claim 7, characterised in that the active substance has a particle size of from 1 to 6 μm.

9. A process according to claim 1, characterised in that the excipient has a mean particle size of from 10 to 100 μm.

10. A process according to claim 9, characterised in that the excipient has a mean particle size of from 15 to 80 μm.

11. A process according to claim 1, wherein the excipient is a single excipient or a mixture of different excipients.

12. A process according to claim 1, characterised in that the excipient consists of a mixture of coarser excipient with an average particle size of 15 to 80 μm and finer excipient with an average particle size of 1 to 9 μm, the proportion of finer excipient constituting 1 to 20% of the total amount of excipient.

13. A process according to claim 1, wherein the active substance is a single active substance or two or more different active substances.

14. A process according to claim 1, characterised in that the active substance consists of one or more compounds selected from among the betamimetics, anticholinergics, corticosteroids and dopamine agonists.

15. An inhalable powder obtained by the process according to claim 1.

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